

REMARKS

The forgoing amendments are responsive to points set forth in the Office Action. Favorable reconsideration is respectfully requested.

The claims are 1-4, 8-13, 15-28, and 32-47. Claims 1-4, 8-13, 15-28, and 32-35 are currently amended. New claims 36-47 are added.

The amendments to claims 1 and 19 are supported in original claims 5 and 7. The remaining amendments to the claims are editorial, and improve the readability of the claims, and respond to the Examiner's rejection under 35 U.S.C. §112, second paragraph.

New claim 36 is supported by original claim 5 and in the specification at page 11 lines 10 to 13. New claim 37 is supported, for example, at page 24, lines 6 to 16 of the specification.

New claim 38 is supported, for example, at page 11, lines 10 to 13 of the specification.

New claim 39 is supported at page 14, lines 6 to 8 of the specification.

New claim 40 is supported at page 14, line 19 of the specification.

New claim 41 is supported at page 9, lines 22 to 25 of the specification.

New claim 42 is supported at page 10, line 6 of the specification.

New claim 43 is supported at page 26, lines 4 to 6 of the specification.

New claim 44 is supported at page 28, lines 18 to 25 of the specification.

New claim 45 is supported at page 29, lines 10 to 11 of the specification.

New claim 46 is supported at page 29, line 12 of the specification.

New claim 47 is supported at page 29, lines 13 to 16 of the specification.

No new matter is added.

The specification is objected to as not being in proper idiomatic English. A substitute specification is here attached which is in proper idiomatic English.

Claims 4, 8, 11, 12, 15-16 and 26-27 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The claims are currently amended to fully address this rejection.

Claims 1-6, 8-14, 19-30 and 32-35 are rejected under 35 U.S.C. § 102(b) as being anticipated by Resasco et al. (US 6,413,487) in view of Baker (US 5,618,875).

Claims 1-6, 8-14, 19-30 and 32-35 are rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Resasco et al. in view of Baker.

Claims 7 and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Resasco et al. as applied to claims 1 and 19 above, and further in view of Ergun et al. (*Fluid Flow through Randomly Packed Columns and Fluidized Beds*, Ind. Eng. Chem. 1949; 41(6): 1179-1184).

Claims 15-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Resasco et al. as applied to claim 1 above and further in view of Margrave et al. (US 6,645,455).

Applicants respectfully traverse each of these rejections.

The present claims are directed to a method and apparatus for producing carbon nanofibers. An important feature in the present claims is that the process for producing carbon nanofibers, as recited for example in claims 1 and 19, requires a void ratio of closely packed fine particles being 10% or less.

Resasco et al., the primary reference cited by the Examiner, only teaches a void ratio within a fluidized bed reactor.

On the contrary, the present invention is directed to a void ratio between the fine particles where carbon nanofibers grow. The claims are currently amended to make this distinction clear.

Accordingly, the prior art does not disclose or suggest all the features of the present claims.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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